

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

## NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY, FLORIDA PRODUCT CONTROL SECTION 11805 SW 26 Street, Room 208 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

Kawneer Company, Inc. 555 Guthridge Court Norcross, GA 30092

#### Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "1630-SS-IR Dry Glazed" 8-13/16" Aluminum Curtain Wall System - S.M.I.

APPROVAL DOCUMENT: Drawing No. 1848, Series titled "8<sup>13</sup>/<sub>16</sub>" Deep 1630–SS–IR Dry Glazed SMI Curtain Wall", sheets 01 through 21 of 21, dated 01/15/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E., bearing the Miami–Dade County Product Control Section Revision stamp with the Notice of Acceptance number and Expiration date by the Miami–Dade County Product Control Section.

### MISSILE IMPACT RATING: Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 13-0522.13 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Jaime D. Gascon, P. E.



J. GAJON 9/10/14

NOA No. 14-0430.34 Expiration Date: August 08, 2018 Approval Date: September 18, 2014

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#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

- 1. Manufacturer's die drawings and sections. (Submitted under previous NOA No. 13–0522.13)
- 2. Drawing No. 1848, Series titled "8<sup>13</sup>/<sub>16</sub>" Deep 1630–SS–IR Dry Glazed SMI Curtain Wall", sheets 01 through 21 of 21, dated 01/15/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E. (Submitted under previous NOA No. 13–0522.13)

#### B. TESTS

- 1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
  - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Dynamic Water Penetration Test, per AAMA 501.1
  - 5) Small Missile Impact Test per FBC, TAS 201–94 and ASTM E 1886–05/ E1996–09
  - 6) Large Missile Impact Test per FBC, TAS 201–94 and ASTM E 1886-05/ E1996-09
  - 7) Thermal Cycling Test per AAMA 501.5
  - 8) Cyclic Wind Pressure Loading per FBC, TAS 203-94 and ASTM E 1886-05/ E1996-09

along with marked-up drawings and installation diagram of an Aluminum curtain wall system, prepared by Architectural Testing, Inc., Test Reports No.'s ATI-C0438.01-450-18 and ATI-C0438.02-450-18, both dated 03/28/13, signed and sealed by Vinu J. Abraham, P. E.

(Submitted under previous NOA No. 13-0522.13)

#### C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with FBC, dated 01/15/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.

(Submitted under previous NOA No. 13-0522.13)

2. Glazing complies with ASTM E1300-04/09

#### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER).

#### E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 13–0129.27, issued to E.I. DuPont DeNemours & Co., Inc. for their "DuPont Butacite® PVB Interlayer" dated 04/11/13, expiring on 12/11/16.

Jaime D. Gascon, P. E.

Product Control Section Supervisor NOA No. 14-0430.34

Expiration Date: August 08, 2018

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### E. MATERIAL CERTIFICATIONS (CONTINUED)

- 2. Notice of Acceptance No. 14-0423.15 issued to Eastman Chemical Company (MA) for their "Saflex CP Saflex and Saflex HP Composite Glass Interlayers with PET Core" dated 06/19/14, expiring on 12/11/18.
- 3. Test Report No. 73703, prepared by Excel Polymers, LLC, an A2LA accredited laboratory, dated 04/11/11, issued to Tremco, Inc. for TREMCO Part No. TR-20494P EPDM exterior glazing gasket complying with ASTM D573-70 HRS at 212°F, D412 1800 PSI, D395B 22 HRS at 158°F, D1149 100 HRS at 104°F passed, D325B passed and D2137 3-Minutes at -40°F passed.

(Submitted under previous NOA No. 13-0522.13)

4. Test Report No. 74326, prepared by Excel Polymers, LLC, an A2LA accredited laboratory, dated 04/26/11, issued to Tremco, Inc. for TREMCO Part No. TR-20087E EPDM exterior glazing gasket complying with ASTM D573 70 HRS at 212°F, ASTM D412 1800 PSI, D395B 22 HRS at 158°F, D1149 100 HRS at 104°F passed, D325B passed and D2137 method A 3-Minutes at -40°F passed, D2240 durometer 70<sup>±5</sup> shore A, D624 tear die 200lbf/ in. and D925 migration stain passed. (Submitted under previous NOA No. 13-0522.13)

#### D. STATEMENTS

- 1. Statement letter of conformance and complying with FBC 5<sup>th</sup> Edition (2014), dated 04/14/14, issued by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
- 2. Statement letter of conformance and complying with FBC-2010, dated 01/09/13, issued by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E. (Submitted under previous NOA No. 13-0522.13)
- 3. Statement letter of no financial interest and independence, dated 01/09/13, issued by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E. (Submitted under previous NOA No. 13-0522.13)
- 4. Laboratory compliance letters for Test Reports No.'s ATI-C0438.01-450-18 and ATI-C0438.02-450-18, issued by Architectural Testing, Inc., both dated 03/28/13, signed and sealed by Vinu J. Abraham, P. E.

  (Submitted under previous NOA No. 13-0522.13)
- 5. Proposal No. 11–0217 issued by Product Control, dated 06/15/12, signed by Jaime D. Gascon, P. E. (Submitted under previous NOA No. 13–0522,13)

#### G. OTHERS

1. Notice of Acceptance No. 13-0522.13, issued to Kawneer Company, Inc. for their Series "1630-SS-IR Dry Glazed 8-13/16" Aluminum Curtain Wall System - S.M.I.", approved on 08/08/13 and expiring on 08/08/18.

Jaime D. Gascon, P. E.

Product Control Section Supervisor NOA No. 14-0430.34

Expiration Date: August 08, 2018 Approval Date: September 18, 2014

#### GENERAL NOTES:

1. THESE CURTAIN WALL SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)" 2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.

3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE

MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.

4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR SMALL MISSILE IMPACT CURTAIN WALL

5. THESE CURTAIN WALL SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES

THIS CURTAIN WALL SYSTEM MAY NOT BE INSTALLED AT ELEVATIONS BELOW 30 FT. ABOVE GRADE WITHOUT AN APPROVED SHUTTER.

ALL ANCHORS SECURING CURTAIN WALL FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.

8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF KD = 0.85 MAY BE APPLIED WHEN USED IN CONJUNCTION WITH LOAD COMBINATIONS SPECIFIED IN SECTION 2.0 OF THE ASCE 7 STANDARD.

NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR CD = 1.6 WAS USED FOR WOOD SCREW ANALYSIS ONLY. 10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER

DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20. 11. THERE SHALL BE NO LIMIT TO THE NUMBER OF HORIZONTAL & VERTICAL PANELS USED FOR ANY JOB PROVIDING ALL RESTRICTIONS ARE MET PER THE ELEVATIONS.

#### DRAWING USE INSTRUCTIONS:

DETERMINE IF THE WALL SYSTEM IS TO BE A MULTI-SPAN OR SINGLE SPAN CONDITION. IF MULTI-SPAN, THE ELEVATIONS SHOWN ON SHEET 3 SHALL APPLY. IF A SINGLE SPAN, THE ELEVATIONS SHOWN ON SHEET 4 SHALL APPLY.

#### FRAME MEMBER END ANCHOR REQUIREMENTS TABLE MINIMUM MINIMUM OPENING TYPE ANCHOR TO OPENING FASTENER TYPE EMBED EDGE DIST. (SUBSTRATE) 1/4" OR NO. 14 SCREWS/BOLTS (4) MIN. 6" WIDE X 2" THICK WOOD FRAME 3/4" 1/4" LAG OR NO. 14 SMS OR WOOD SCREW OR BUCK (MIN. GR. 2 & G=0.55) FULL 1/2" 1/4-14 GR. 5 SELF TAP/DRILL SCREW MIN. 16 GA. 50 KSI METAL STUD, MIN. 1/8" THK A36 STEEL OR MIN. 1/4" GR. 5 CS OR 410 SS BOLT WITH WASHER **FULL** 1/2" 1/8" THK 6063-T5 ALUMINUM & LOCK NUT MIN. 3000 PSI CONCRETE (1) 1/4" CONCRETE SCREW 1 3/4" 2" 5/16" SCREWS/BOLTS 5/8" 5/16-24 GR. 5 SELF TAP/DRILL SCREW FULL MIN. 1/8" THK A36 STEEL 5/16" GR. 5 CS OR 410 SS BOLT WITH FULL 5/8" WASHER & LOCK NUT 1/2" SCREWS/BOLTS 1/2-13 300 SS HCMS OR GR. 5 CS THREAD MIN. 1/4" THK A36 STEEL FULL 1" FORMING SCREW 1/2" GR. 5 CS OR 410 SS BOLT WITH WASHER MIN. 1/8" THK A36 STEEL 1" & LOCK NUT (3) MIN. 3000 PSI CONCRETE (2) 1/2" CONCRETE SCREW ANCHOR 3 3/4" | SEE DETAILS

- (1) CONCRETE SCREWS SHALL BE ELCO ULTRACONS (C.S.), ELCO CRETE-FLEX (S.S.), ITW RAMSET/RED HEAD TAPCONS (C.S. OR S.S.) OR HILTI KWIK-CON II (C.S OR S.S.).
- (2) 1/2" CONCRETE SCREWS SHALL BE SIMPSON STRONG—TIE TITAN HD SCREW ANCHOR (GALVANIZED STEEL)
- (3) SEE DETAILS ON SHEETS 8 & 9 FOR CONCRETE THICKNESS REQUIREMENTS WHEN 1/2" CONCRETE SCREWS ARE USED.
- (4) WOOD AND METAL STUD SUBSTRATES MAY NOT APPLY WITH LEVEL "E" CURTAIN WALL.

#### CORNER CONSTRUCTION:

ARE SEALED WITH DOW 795 SILICONE SEALANT.

HEAD & SILL MEMBERS TO STANDARD VERTICAL SIDE & INTERMEDIATE MEMBERS: VERTICAL MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED THROUGH VERTICAL MEMBERS & INTO THE HORIZONTAL MEMBERS SCREW SPLINES WITH 2 NO. 12 X 1" HWHTTF SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT. INTERMEDIATE HORIZONTAL MEMBERS TO STANDARD VERTICAL SIDE & INTERMEDIATE MEMBERS: VERTICAL MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED THROUGH VERTICAL MEMBERS & INTO THE HORIZONTAL MEMBERS SCREW SPLINES WITH 4 NO. 12 X 1" HWHTTF SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE HEAD & SILL MEMBERS TO CORNER FRAMING MEMBER: VERTICAL CORNER MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE MITER CUT, BUTTED AND MECHANICALLY FASTENED TO THE VERTICAL MEMBERS VIA A SHEAR BLOCK (ITEMS #9 OR #10). THE SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL CORNER FRAME MEMBERS WITH 4 NO. 12 X 7/16" PHTF SCREWS. THE HORIZONTAL FRAME MEMBERS ARE ATTACHED TO THE SHEAR BLOCK WITH 2 NO. 12 X 5/8" PHTF SCREWS, CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

INTERMEDIATE HORIZONTAL MEMBERS TO CORNER FRAMING MEMBER: VERTICAL MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED TO THE vertical members via a shear block (item #11). The shear block is mechanically fastened TO THE VERTICAL CORNER FRAME MEMBERS WITH 4 NO. 12 X 7/16" PHTF SCREWS. THE HORIZONTAL FRAME MEMBERS ARE ATTACHED TO THE SHEAR BLOCK WITH 4 NO. 12 X 1" FHIF SCREWS. CORNERS

> <u>FREE SPANNING PERIMETER FRAME MEMBER</u> PERIMETER SEALANT NOTE:

THE MINIMUM & MAXIMUM ALLOWABLE SPACE BETWEEN PERIMETER FRAME MEMBERS & THE OPENING SUBSTRATE OR FINISHES SHALL BE SPECIFIED BY THE ENGINEER OR ARCHITECT OF RECORD FOR EACH JOB BUT SHALL NOT BE LESS THAN 1/2" NOR GREATER THAN 1 3/8". WHEN CONSIDERING TYPE, DEPTH & JOINT SPAN OF SEALANT, THE ENGINEER/ARCHITECT SHALL TAKE INTO CONSIDERATION THE DEFLECTION OF THE JAMB MEMBER THAT WOULD OCCUR WHILE SUPPORTING THE JOB REQUIRED DESIGN WIND PRESSURE. ALSO TO BE CONSIDERED SHALL BE THE MATERIALS & SURFACES TO WHICH THE SEALANT WILL BE APPLIED.

> PRODUCT REVISED as complying with the Florida

diami Dude Product Control

Approved as complying with the

Florida Building Code
Date
NOA# 3-05
Migmi Bathe Product Control

Acceptance No

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MAXIMUM ALLOWABLE VERTICAL	DRAWN BY: W.R.U. PLOT: 1=48		-	CHECKED BY W.W.S.			
FRAMING MEMBER DEFLECTION			٥	DATE: 01/15/13			
INTERMEDIATE & CORNER FRAMING MEMBERS:	DATE						
L/180	ΒX						
PERIMETER SIDE FRAMING  MEMBERS: LESSER OF L/180 OR 0.86"	ESCRIPTION						

L/180 = MEMBER'S UNSUPPORTEDSPAN LENGTH DIVIDED BY 180. THIS IS THE MAXIMUM ALLOWABLE DEFLECTION AS RESTRICTED BY TESTING & THE BUILDING CODE. IF JOB CONDITIONS REQUIRE LESS DEFLECTION, THE JOB CONDITIONS SHALL CONTROL.

## MAXIMUM ALLOWABLE DESIGN PRESSURE (MULTI & SINGLE SPAN CURTAIN WALL)

+130/-130 PSF

THE ABOVE STATED PRESSURES ARE THE MAXIMUM ALLOWED ON ANY JOB REGARDLESS OF WHAT THE JOB SPECIFIC DESIGN RESULTS MAY SHOW. INCREASE OF ALLOWABLE DESIGN PRESSURE ON ANY JOB IS CONSIDERED OUTSIDE THE SCOPE OF THIS APPROVAL. SEE "CURTAIN WALL DESIGN NOTES" ON THIS SHEET FOR ACTUAL JOB

GLASS D.L.O. SIZE VS. PRESSURE					
	GLASS OPTIONS	MAXIMUM D.L.O. WIDTH	MAXIMUM D.L.O. HEIGHT	MISSILE LEVEL RATING	ALLOWABLE DESIGN PRESSURE
	1 0 0	60"	93"	S.M.I.	+/-130 PSF
	1 & 2	93"	60"	S.M.l.	+/-130 PSF
	SEE GLAZING	DETAILS F	OR GLASS	OPTIONS	

ANY PRODUCT NOT PRODUCED BY THE MANUFACTURES

SCIA SOCIA ઉં≽ંજ

KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

ENGINEERING P.A. (CA 6809)

CURTAIN

SMI

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DRY

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SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL

1848 SHEET NO.

OF

## VERTICAL MEMBER END ANCHOR REACTION LOAD CAPACITY (MULTI & SINGLE SPAN CURTAIN WALL)

ANCHOR SECTION (3)	ANCHOR DESCRIPTION	(1) MAXIMUM ALLOWABLE REACTION LOAD
A1	SIDE MEMBER TO WOOD, METAL STUD OR ALUMINUM SUBSTRATE	877 LBS
A2	SIDE MEMBER TO STEEL SUBSTRATE	2058 LBS
А3	SIDE MEMBER TO CONCRETE SUBSTRATE	1990 LBS
B1	INTERMEDIATE MEMBER TO WOOD, METAL STUD OR ALUMINUM SUBSTRATE	1646 LBS
B2	INTERMEDIATE MEMBER TO STEEL SUBSTRATE	4515 LBS
B3	INTERMEDIATE MEMBER TO CONCRETE SUBSTRATE	3626 LBS
C1	INTERMEDIATE DOOR JAMB MEMBER TO CONCRETE OR STEEL SUBSTRATE AT SILL	3511 LBS
D1	CORNER MEMBER TO STEEL SUBSTRATE	(2) 2726 LBS
D2	CORNER MEMBER TO CONCRETE SUBSTRATE	(2) 2726 LBS

- (1) MAXIMUM ALLOWABLE REACTION LOADS SHOWN CONSIDER REACTIONS FROM WIND LOADS ONLY & APPLY TO BOTH POSITIVE & NEGATIVE WIND DIRECTIONS. IN ADDITION TO WIND LOADS, THE CURTAIN WALL DESIGN ENGINEER OF RECORD FOR EACH PROJECT SHALL ALSO CONSIDER OTHER APPLICABLE LOADS SUCH AS, BUT POSSIBLY NOT LIMITED TO, DEAD LOADS FROM THE CURTAIN WALL
- (2) REACTION LOAD SHOWN FOR THE CORNER ANCHORS IS THE RESULTANT LOAD IN THE PLANE OF THE MULLION (LOAD FROM BOTH SIDES COMBINED INTO A RESULTANT). FOR EITHER SIDE LOAD, THE ALLOWABLE REACTION LOAD SHALL NOT EXCEED 1928 LBS FROM EITHER SIDE FOR ANCHOR TYPES D1 & D2.
- (3) FOR ANCHOR SECTIONS, SEE SECTIONS ON SHEETS 7 & 8.

## WIND LOAD ANCHOR REACTION LOAD CAPACITY

(MULTI & SINGLE SPAN CURTAIN WALL)

MEMBER TYPE	(1) MAXIMUM ALLOWABLE REACTION LOAD
SIDE	6125 LBS
INTERMEDIATE	11789 LBS
CORNER	(2) 8661 LBS

(1) WIND LOAD ANCHORS ARE APPLICABLE FOR WIND LOAD RESISTANCE ONLY. THEY ARE NOT APPLICABLE FOR SUPPORT OF WALL WEIGHT. (2) REACTION LOAD SHOWN FOR THE CORNER ANCHORS IS THE RESULTANT LOAD IN THE PLANE OF THE MULLION (LOAD FROM BOTH SIDES COMBINED INTO A RESULTANT). FOR EITHER SIDE LOAD. THE ALLOWABLE REACTION LOAD SHALL NOT EXCEED 6125 LBS FROM EITHER SIDE.

## (1) MAXIMUM ALLOWABLE BENDING MOMENTS IN VERTICAL FRAMING MEMBERS (MULTI AND SINGLE SPAN WALLS)

(2) VERTICAL MEMBER	(3) MAXIMUM ALLOWABLE BENDING MOMENT (POS & NEG)
SIDE MEMBER WITH REINFORCEMENT "RO"	(5) 61558 IN-LB
SIDE MEMBER WITH REINFORCEMENT "R1"	(5) <sub>104060</sub> IN-LB
SIDE MEMBER WITH REINFORCEMENT "R2"	(5) <sub>104060</sub> IN-LB
INTERMEDIATE MEMBER WITH NO REINFORCEMENT	56110 IN-LB
INTERMEDIATE MEMBER WITH REINFORCEMENT "R1"	98309 IN-LB
INTERMEDIATE MEMBER WITH REINFORCEMENT "R2"	185145 INLB
CORNER MEMBER WITH REINFORCEMENT "R3"	(4)147141 IN-LB

- (1) THE VALUES IS THIS TABLE ARE APPLICABLE TO THE JOB
- RÉQUIRED DESIGN OF THE MULTI-SPAN & SINGLE SPAN WALL SYSTEMS.
- (2) FOR DESCRIPTIONS OF REINFORCEMENTS, SEE THE "VERTICAL MEMBER REINFORCEMENT LEGEND".
- (3) ALL VALUES ARE BASED ON THE LESSER OF TESTED MOMENT AND ALLOWABLE MOMENT.
- (4) MOMENT VALUE SHOWN FOR THE CORNER MULLION IS DUE TO THE RESULTANT LOAD IN THE PLANE OF THE MULLION (LOAD FROM BOTH SIDES COMBINED INTO A RESULTANT). FOR SINGLE SIDE LOAD, THE ALLOWABLE MOMENT SHALL NOT EXCEED 104060 IN-LB. IN THAT DIRECTION (LOAD VECTOR 45 DEGREES TO MULLION ANGLE).
- (5) WHEN 2 SIDE MEMBERS ARE USED TO FORM A CORNER, EACH SIDE MEMBER SHALL BE RESTRICTED TO THE INDIVIDUAL ALLOWABLE MOMENT SHOWN IN THIS TABLE (EACH CONSIDERED TO RESIST ITS OWN SINGLE SIDE LOAD).

## CURTAIN WALL DESIGN NOTES:

1, WITH EACH APPLICABLE JOB, SHOP DRAWINGS SHALL BE PREPARED AND CERTIFIED BY A LICENSED ENGINEER EXPERIENCED WITH CURTAIN WALL DESIGN. 2. THE RESPONSIBLE ENGINEER SHALL DESIGN THE WALL SYSTEM SEPARATELY FOR EACH JOB & CONFIRM THAT ALL CONDITIONS STATED HERE-IN HAVE BEEN CONSIDERED AND ADHERED TO IN THAT DESIGN.

3. IN HIS/HER DESIGN, THE RESPONSIBLE ENGINEER SHALL VERIFY THE INTEGRITY OF ALL CONNECTIONS AND FRAMING MEMBERS & SHALL TAKE FULL RESPONSIBILITY FOR THE INTEGRITY OF THE SYSTEM DESIGN AS A WHOLE WHILE NOT ALLOWING THE CONDITIONS STATED HERE-IN TO BE EXCEEDED. ALLOWABLE SUPPORT REACTIONS AND VERTICAL FRAMING MEMBER BENDING MOMENTS SHALL NOT EXCEED THOSE STATED IN THE TABLES ON THIS SHEET, REGARDLESS OF JOB DESIGN.

4. THE CURTAIN WALL DESIGN ENGINEER SHALL CONSIDER ALL APPLICABLE REACTION LOADS IN HIS/HER DESIGN WHILE NOT ALLOWING THE REACTIONS RESUTLING FROM WIND LOADS TO EXCEED THOSE SPECIFIED IN THE ANCHOR REACTION LOAD TABLE.

5. THE WORSE CASE OF THE CONDITIONS SPECIFIED IN THIS PRODUCT APPROVAL DRAWING AND THOSE DETERMINED BY THE INDMODUAL JOB ENGINEER'S ANALYSIS & DESIGN SHALL CONTROL AS APPLICABLE FOR THE ACTUAL JOB.

6. REGARDLESS OF JOB DETERMINED MEMBER STRESS & DEFLECTION CONDITIONS, THE FOLLOWING SHALL APPLY:

A. REINFORCEMENT TYPE R1 MUST BE PLACED BETWEEN SUPPORTS IN ALL VERTICAL FRAME MEMBERS THAT SPAN OVER 132" BETWEEN THEIR SUPPORTS (NOT REQUIRED IF THE UNSUPPORTED SPAN IS 132" OR LESS & THE JOB DESIGN ALLOWS FOR NO REINFORCEMENT).

REINFORCEMENT TYPE R2 MUST BE PLACED BETWEEN SUPPORTS IN ALL VERTICAL FRAME MEMBERS THAT SPAN OVER 144" BETWEEN THEIR SUPPORTS (NOT

REQUIRED IF THE UNSUPPORTED SPAN IS 144" OR LESS & THE JOB DESIGN ALLOWS FOR LESSER OR NO REINFORCEMENT)

ALL VERTICAL INTERMEDIATE FRAMING MEMBERS SHALL BE REINFORCED ACROSS ALL INTERMEDIATE WIND LOAD ANCHOR LOCATIONS WITH ONE OF THE REINFORCEMENT TYPES R1 OR R2 AS SPECIFIED IN THE ELEVATION. THIS REINFORCEMENT SHALL EXTEND A MINIMUM OF 18" ABOVE & BELOW THE SUPPORT.

D. REINFORCEMENT TYPE R3 IS REQUIRED IN ALL VERTICAL CORNER FRAME MEMBERS. IT SHALL BE CONTINUOUS BETWEEN ALL MEMBER SPLICE JOINTS AND

EXTEND TO WITHIN 15" OF WALL BASE, 15" OF A SPLICE & 15" OF THE WALL TOP.

7. REINFORCEMENT IS NOT REQUIRED TO BE CONTINUOUS TOP TO BOTTOM WITHIN THE VERTICAL FRAMING MEMBERS. REINFORCEMENT MAY BE NON-CONTINUOUS, AS DETERMINED FOR EACH JOB, PROVIDING IT MEETS THE MINIMUM GUIDELINES OF THIS DRAWING.

8, WHILE A TWIN SPAN IS SHOWN, MORE THAN 2 SPANS MAY EXIST WITHIN THE MAXIMUM OVERALL HEIGHT SHOWN.

9. THE OVERALL CURTAIN WALL HEIGHT SHALL NOT EXCEED THAT SPECIFIED. HOWEVER, MORE THAN ONE CURTAIN WALL ASSEMBLY MAY BE STACKED ON ANY BUILDING PROVIDING EACH CURTAIN WALL ASSEMBLY IS RESTED ON SEPERATE BASE STRUCTURE. 10. SPLICING OF VERTICAL FRAME MEMBERS MAY OCCUR BETWEEN SUPPORTS AS REQUIRED. LOCATION OF THOSE SPLICES SHALL BE WHERE A BENDING MOMENT OF

NEAR ZERO(0) EXISTS IN THE MEMBER. 11. THE ELEVATIONS SHOW ONE DOOR SECTION. MULTIPLE DOOR SECTIONS MAY OCCUR SIDE—BY SIDE IN ONE WALL SYSTEM PROVIDING ALL REQUIREMENTS WITHIN THIS DRAWING ARE MET AND THE JOB DESIGN ALLOWS FOR THE MULTIPLE DOOR CONDITION.

12. ALTHOUGH A DOOR SECTION IS SHOWN, THAT SECTION MAY EXIST WITH OR WITHOUT A DOOR.

13, DOORS MUST ALWAYS BE PLACED BETWEEN 2 INTERMEDIATE VERTICAL FRAMING MEMBERS. THEY MAY NOT BE PLACED AGAINST A SIDE MEMBER.

14. THERE IS NO LIMIT TO THE NUMBER OF SECTIONS HORIZONTALLY PROVIDING THE OPENING IS DESIGNED TO SUPPORT THE LOADS TRANSFERED FROM THE WALL

15. ANY CONDITIONS THAT VARY FROM THOSE SPECIFIED HERE-IN SHALL BE SUBJECT TO SEPERATE EVALUATION AND CERTIFICATION BY A FLORIDA P.E. AND SHALL BE CONSIDERED OUTSIDE THE SCOPE OF THIS APPROVAL.

# VERTICAL MEMBER REINFORCEMENT LEGEND

RO = NO REINFORCEMENT

R1 = REINFORCED WITH 1 STEEL BAR PART NUMBER 28

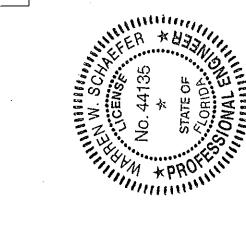
[R2] = REINFORCED WITH 2 STEEL BARS PART NUMBER 28

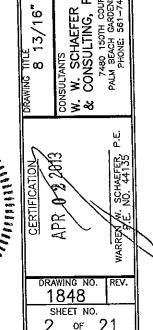
R3 = REINFORCED WITH 3 STEEL CHANNELS PART NUMBERS 29, 30 & 31

SEE PARTS DRAWINGS & PARTS LIST FOR APPLICABLE REINFORCEMENT MEMBERS & THEIR DETAIL.

> PRODUCT REVISED as complying with the Florida Building Code Acceptance No Expiration Date Ajami Dade Product Control

Approved as complying with the





CHECKED BY

01/15/13

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WALL

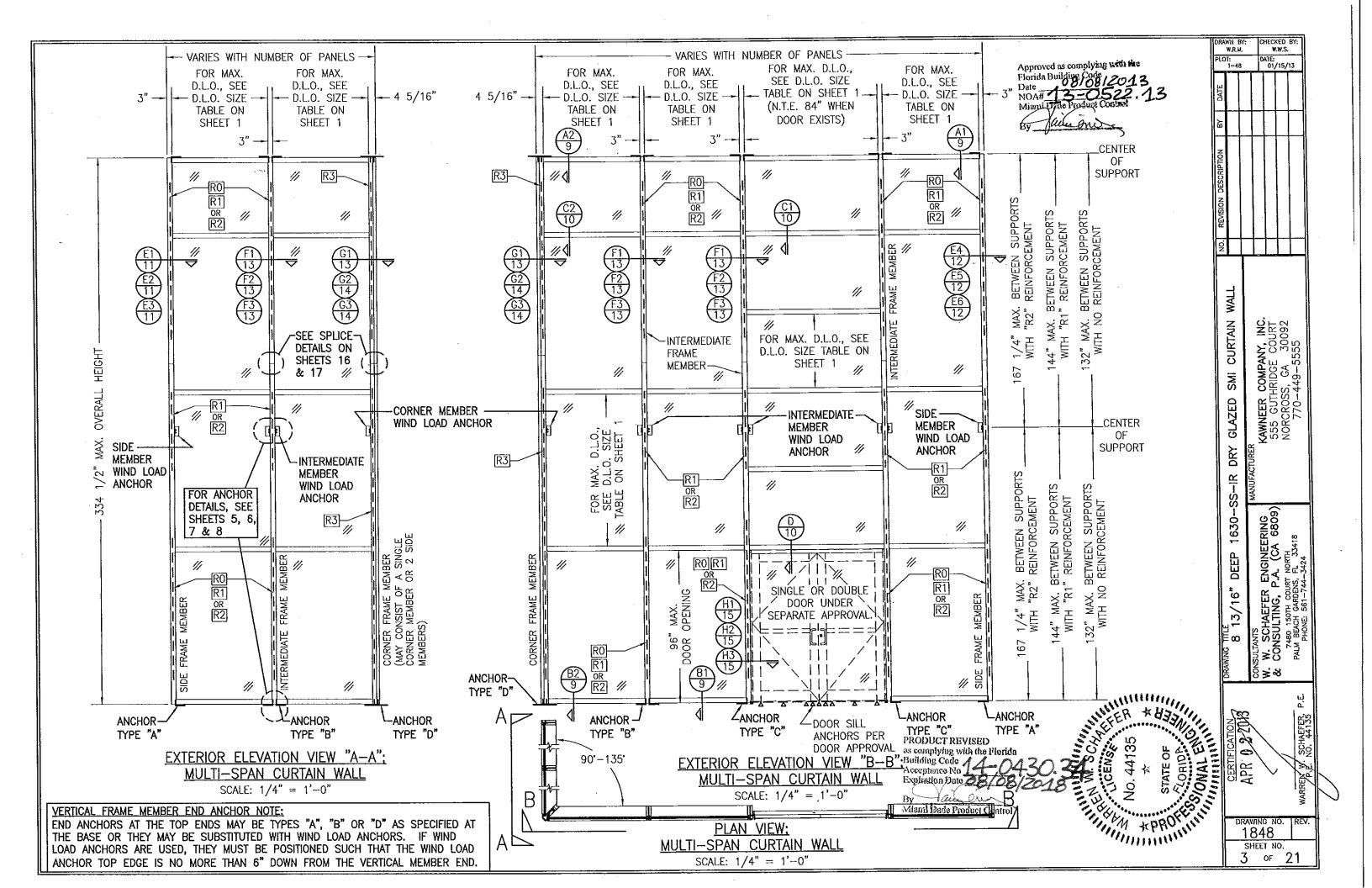
CURTAIN

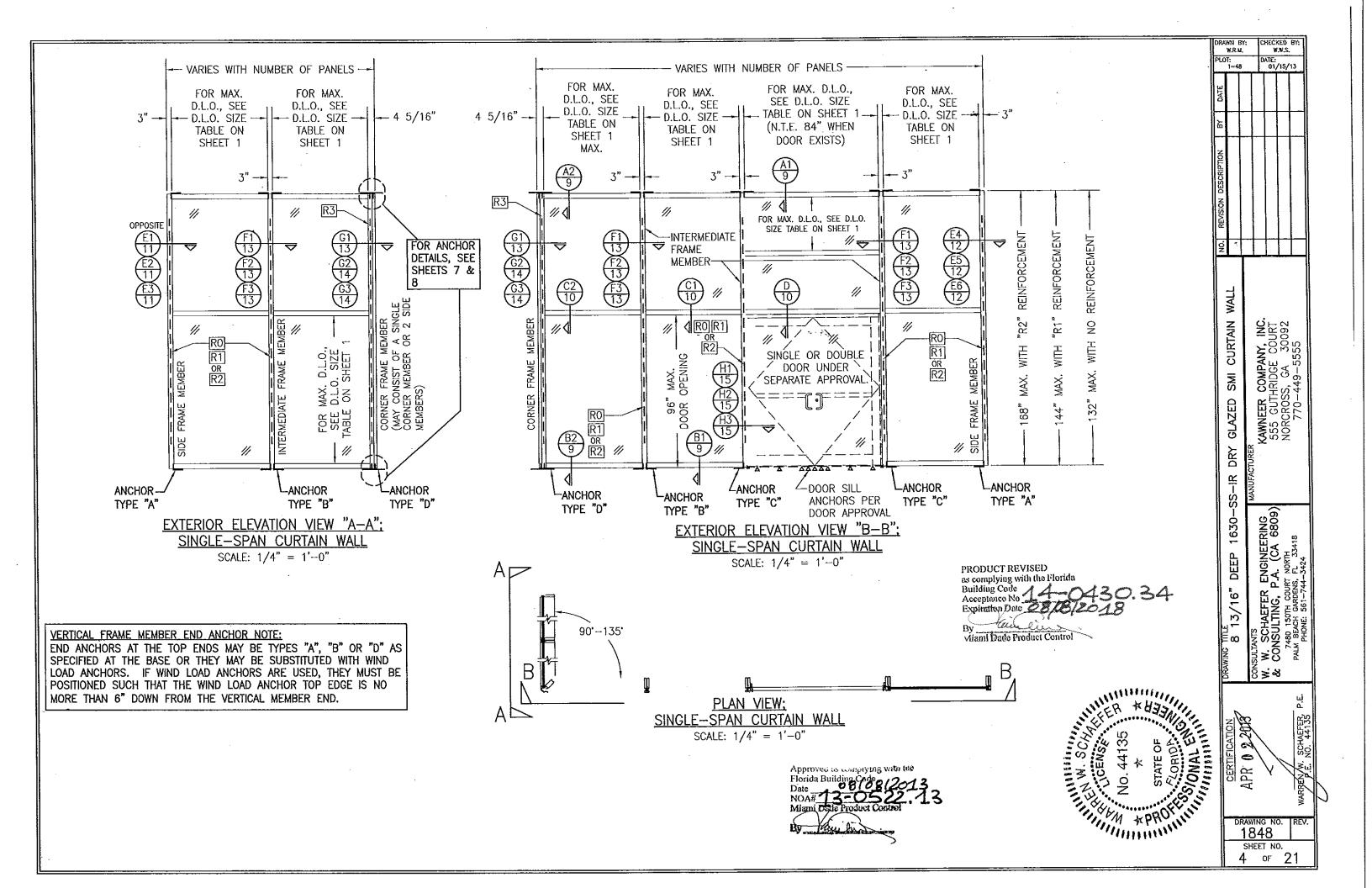
GLAZED

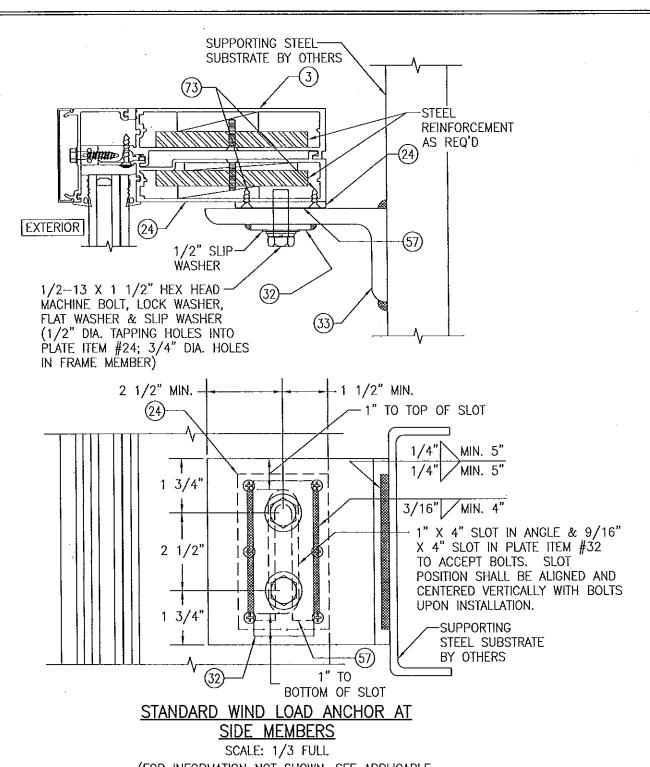
DRY

KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, CA 30092 770-449-5555

R ENGINEERING P.A. (CA 6809) UUTI NORTH ENS. 1. 33418







(FOR INFORMATION NOT SHOWN, SEE APPLICABLE SECTIONS E1/11 THROUGH E6/12.)

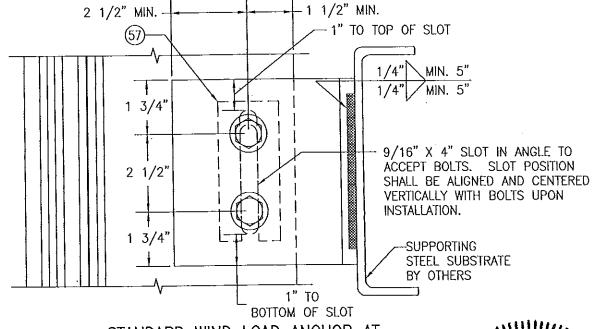
NOTE: ALL 1/2" BOLTS CONNECTING ANGLES TO MEMBERS SHALL BE GRADE 5 STEEL OR 300 SERIES STAINLESS STEEL.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-04-30.34
Expiration Date 08/08/2018

Miami Dade Product Control

Approved as complying with the Florida Building Code 13 Date 13 NOA# 13-50 Product Control

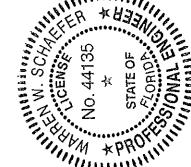
-SUPPORTING 1/2-13 X 5 1/2" HEX— HEAD BOLT, FLAT WASHER STEEL SUBSTRATE & SLIP WASHER BY OTHERS EXTERIOR -STEEL REINFORCEMENT AS REQ'D 5/16" MAX. SHIM MIN, 3" WIDE X MIN, 4" LONG X MAX 5/16" THICK COMMERCIAL GRADE PLASTIC HORSE SHOE SHIM 1/2-13 NUT, LOCK-WASHER, FLAT WASHER & SLIP WASHER



STANDARD WIND LOAD ANCHOR AT INTERMEDIATE MEMBERS

SCALE: 1/3 FULL

(FOR INFORMATION NOT SHOWN, SEE APPLICABLE SECTIONS F1/13 THROUGH F3/13.)



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WARREN W. SCHAEFER, P.E.

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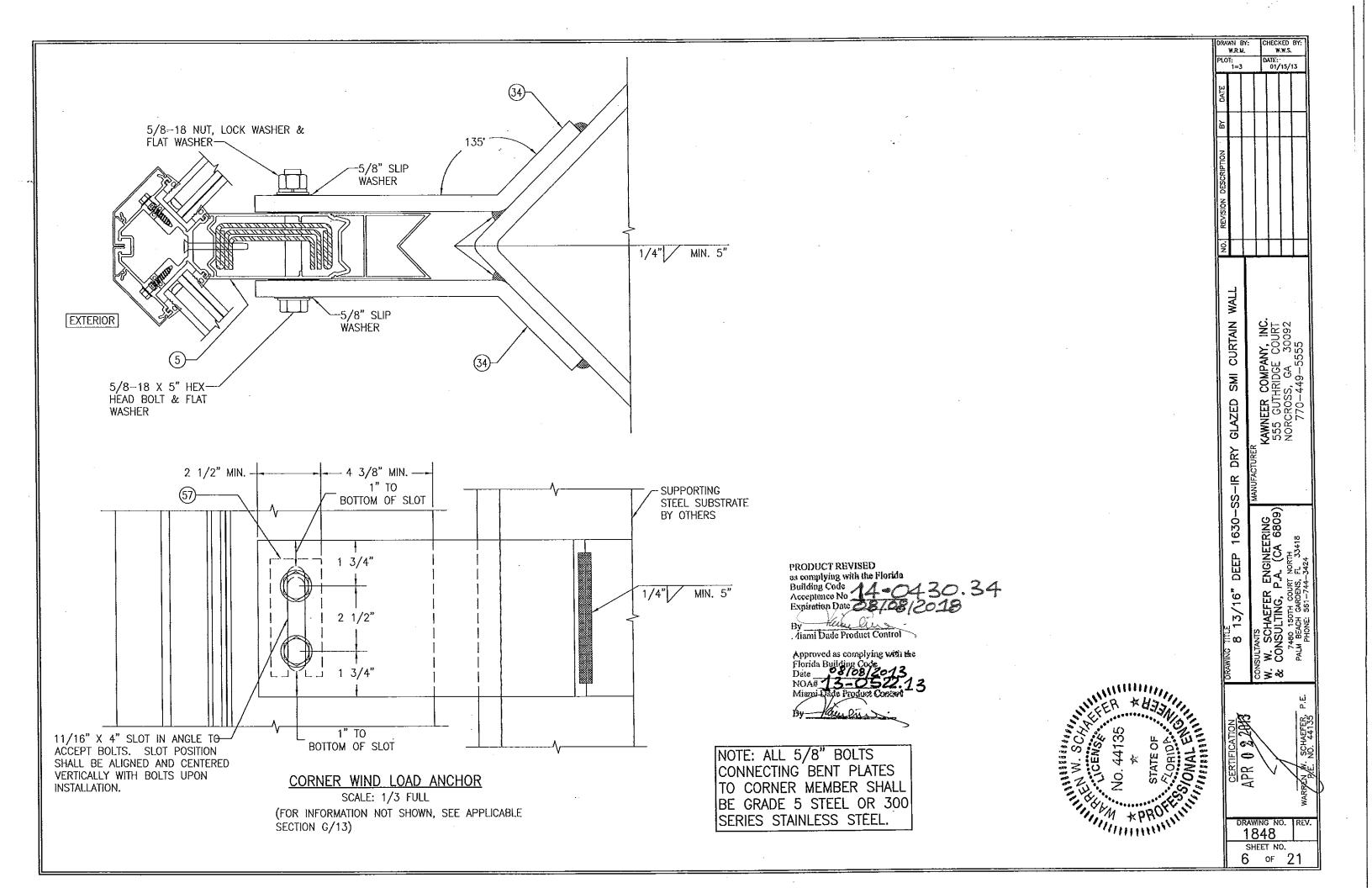
1630-SS

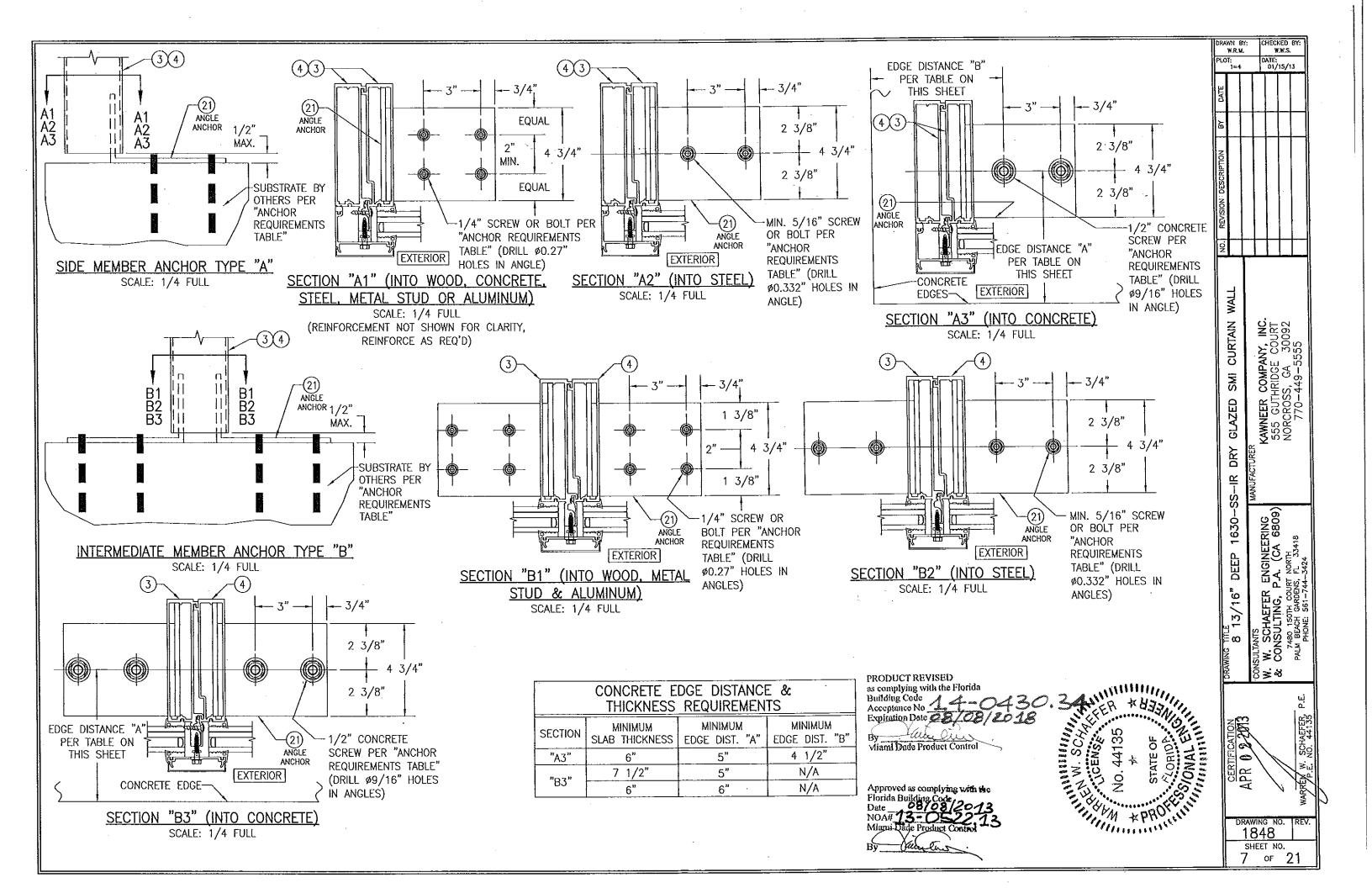
DEEP

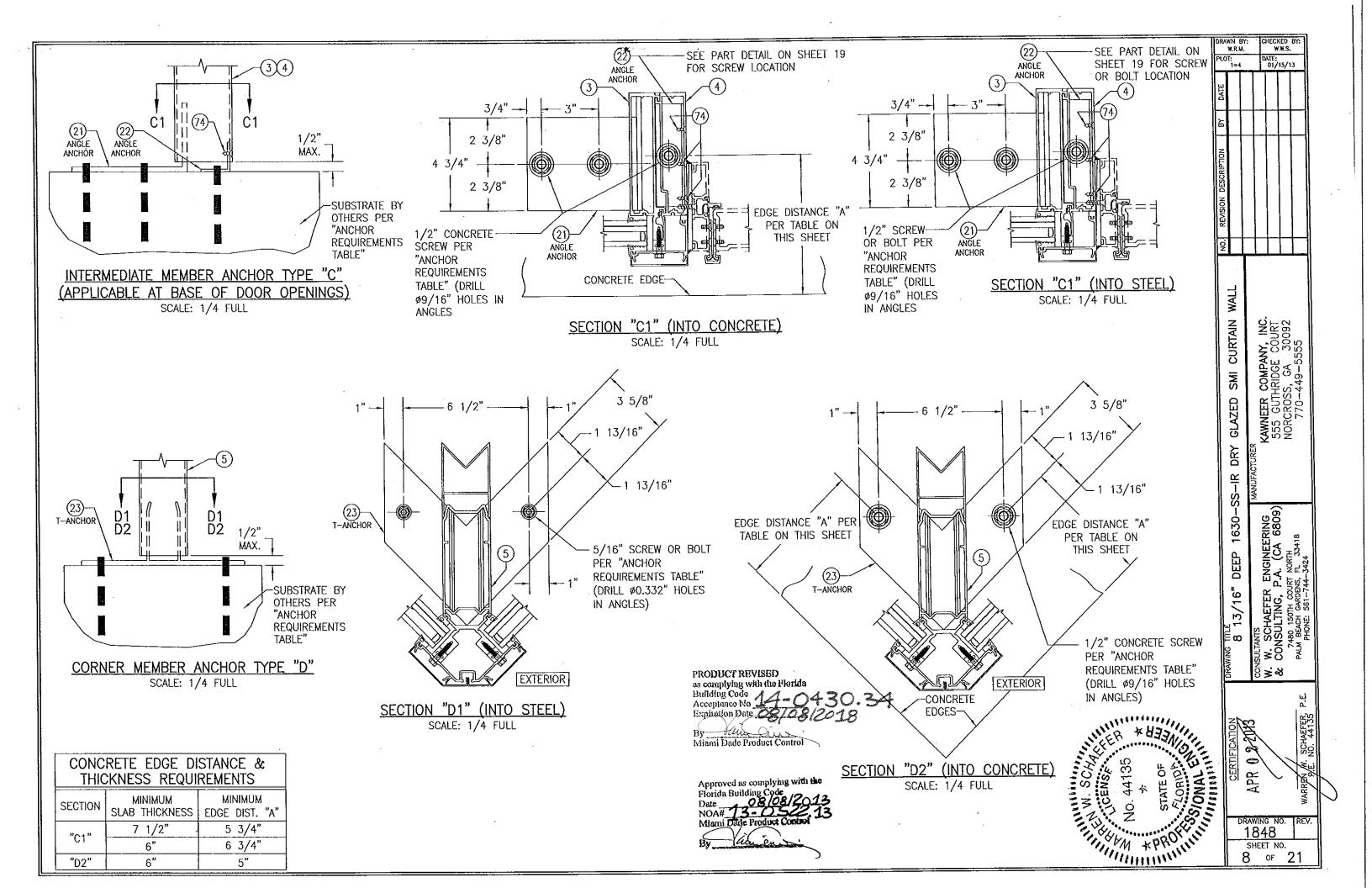
13/16"

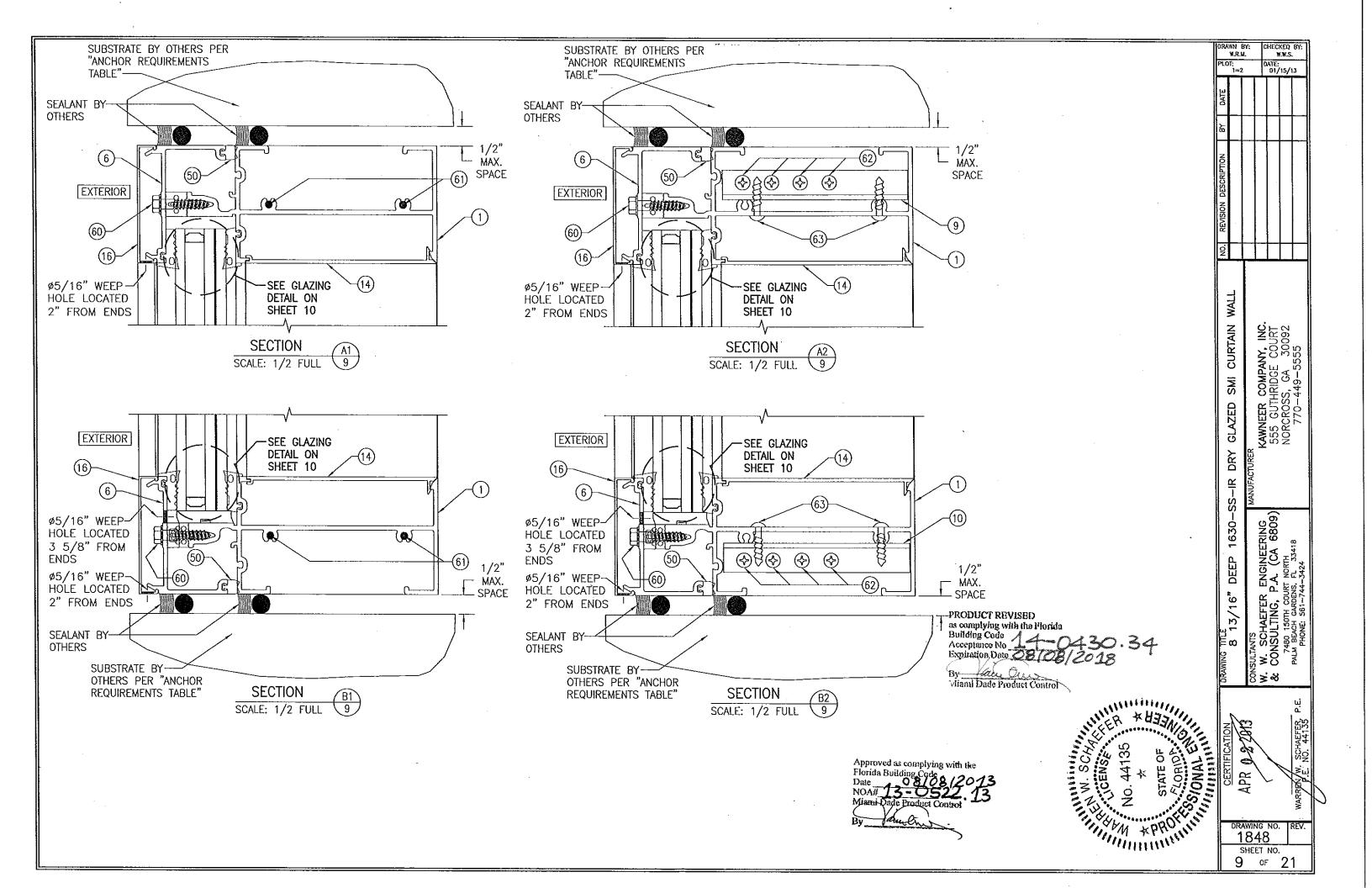
KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

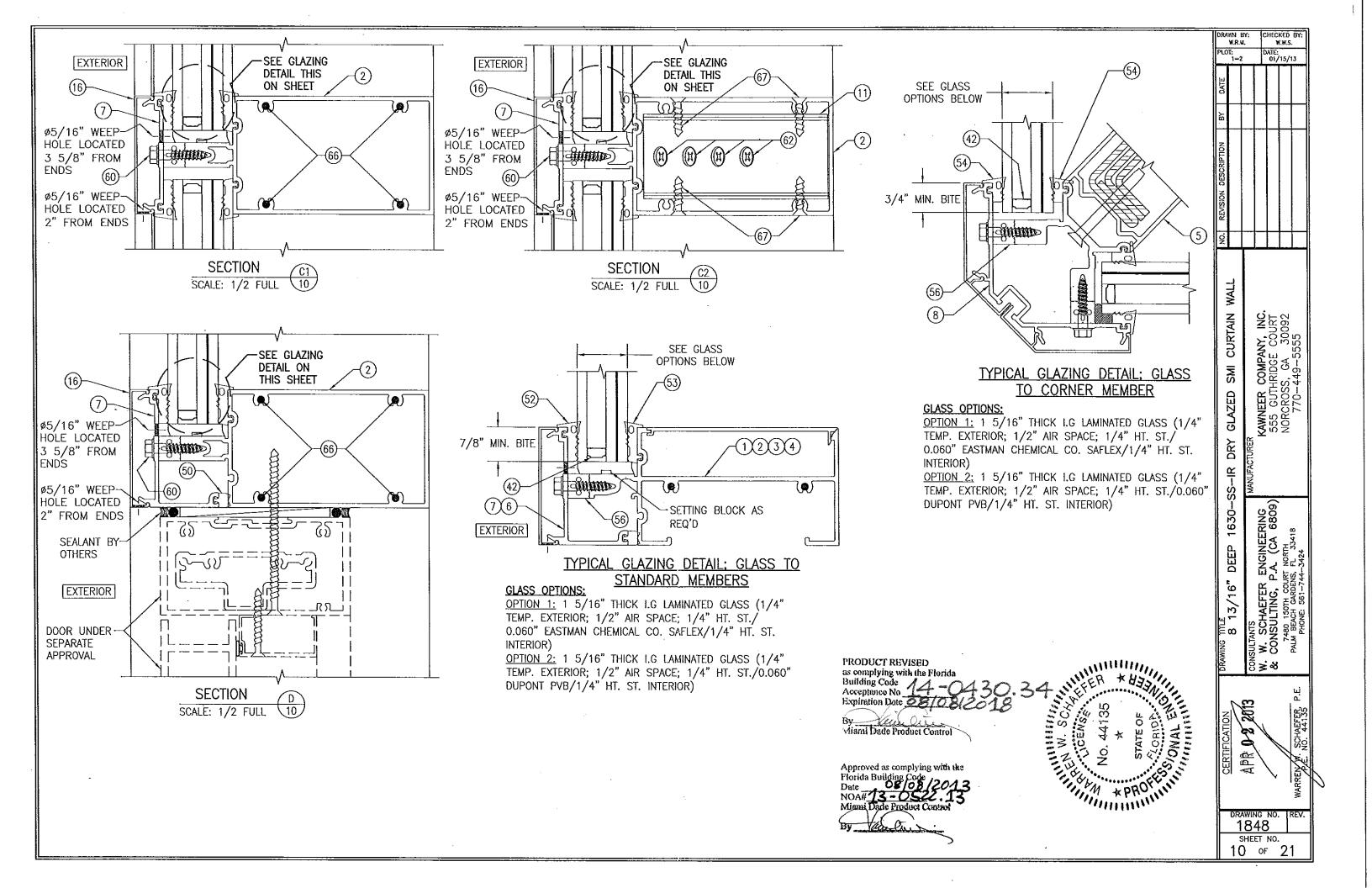
W. SCHAEFER ENGINEERING
CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 551-744-3424

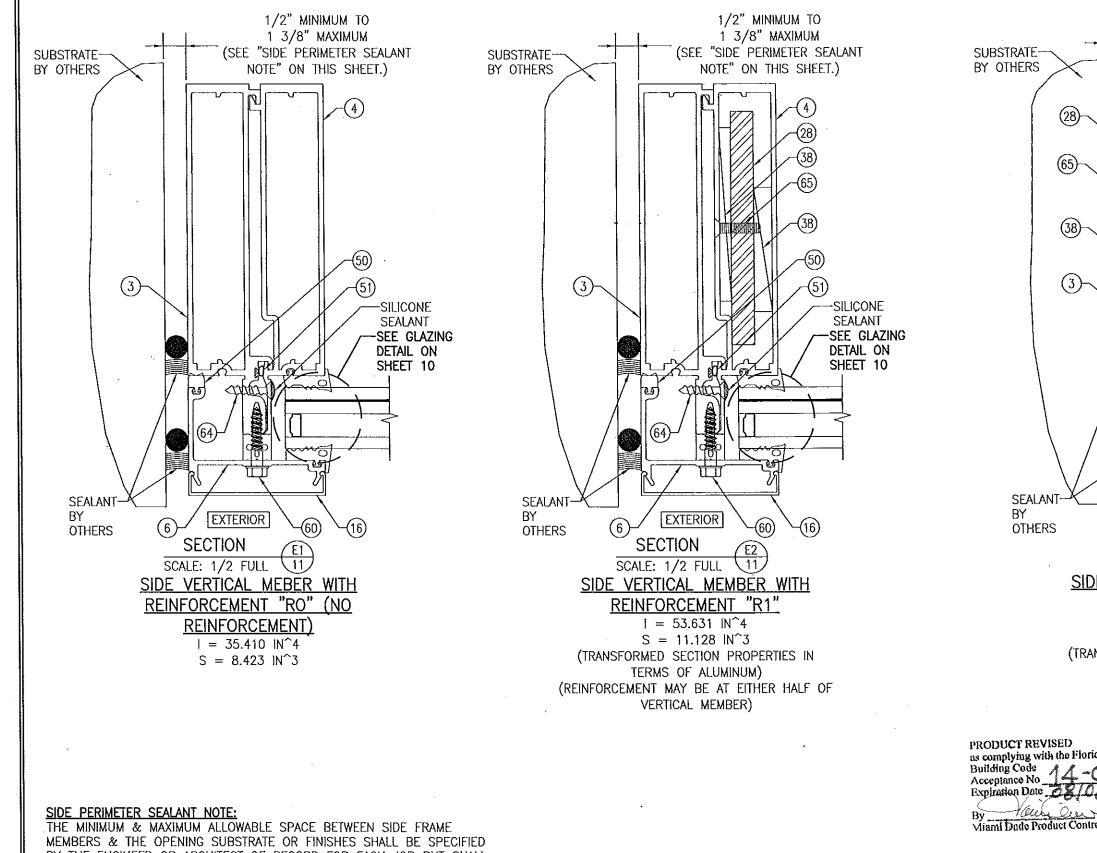




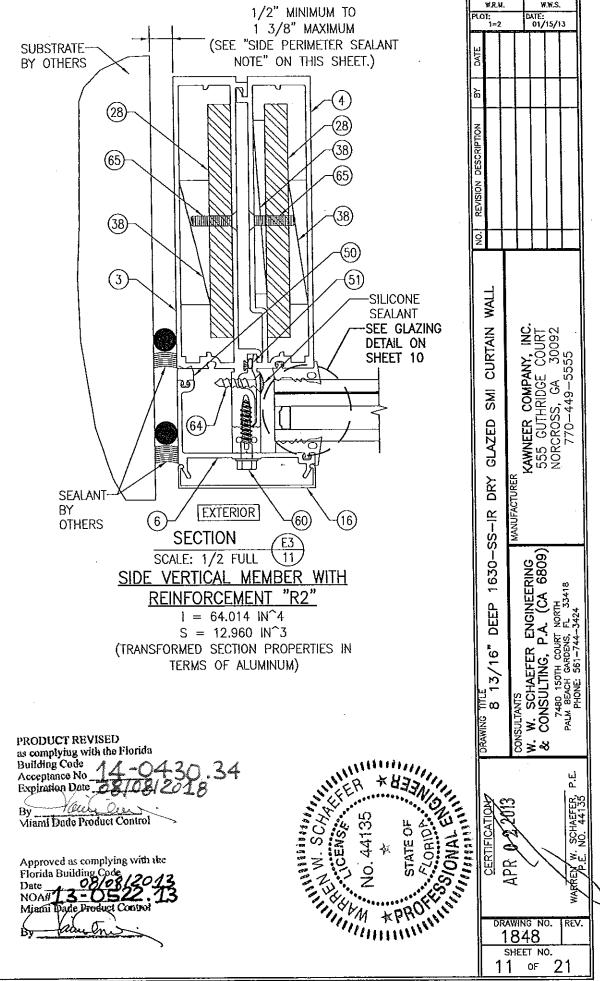


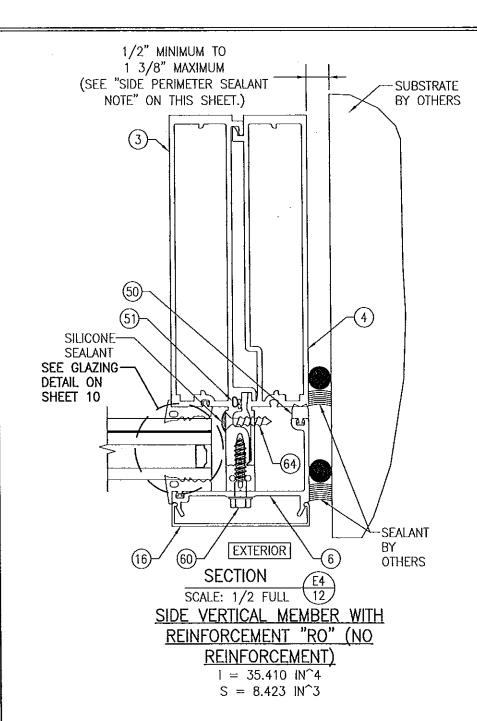


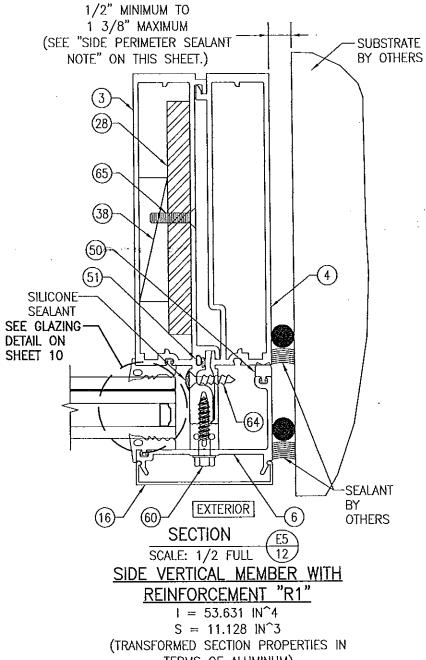




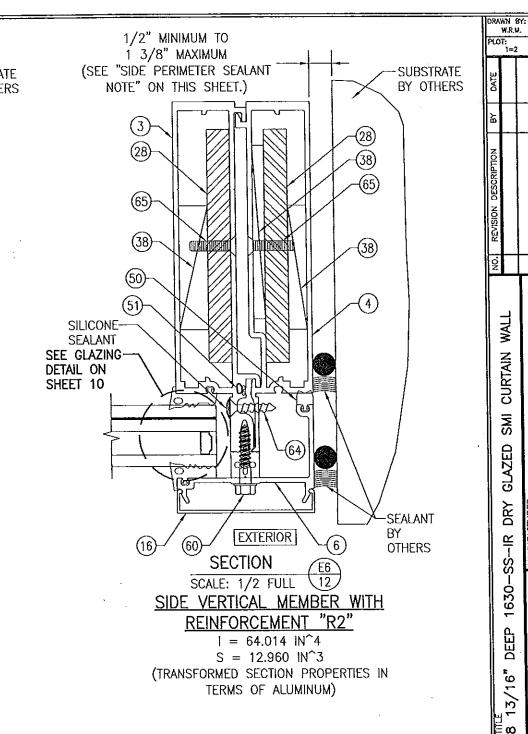
THE MINIMUM & MAXIMUM ALLOWABLE SPACE BETWEEN SIDE FRAME MEMBERS & THE OPENING SUBSTRATE OR FINISHES SHALL BE SPECIFIED BY THE ENGINEER OR ARCHITECT OF RECORD FOR EACH JOB BUT SHALL NOT BE LESS THAN 1/2" NOR GREATER THAN 1 3/8". WHEN CONSIDERING TYPE, DEPTH & JOINT SPAN OF SEALANT, THE ENGINEER/ARCHITECT SHALL TAKE INTO CONSIDERATION THE DEFLECTION OF THE JAMB MEMBER THAT WOULD OCCUR WHILE SUPPORTING THE JOB REQUIRED DESIGN WIND PRESSURE. ALSO TO BE CONSIDERED SHALL BE THE MATERIALS & SURFACES TO WHICH THE SEALANT WILL BE APPLIED.





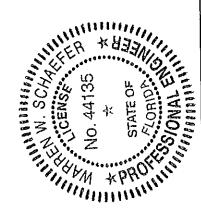


TERMS OF ALUMINUM) (REINFORCEMENT MAY BE AT EITHER HALF OF VERTICAL MEMBER)



PRODUCT REVISED as complying with the Florida Acceptance No Aiami Dade Product Control

Approved as complying with the



W. SCHAEFER ENGINEERING CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GREENS, F. 33418 PHONE: 561–744–3424

DATE: 01/15/13

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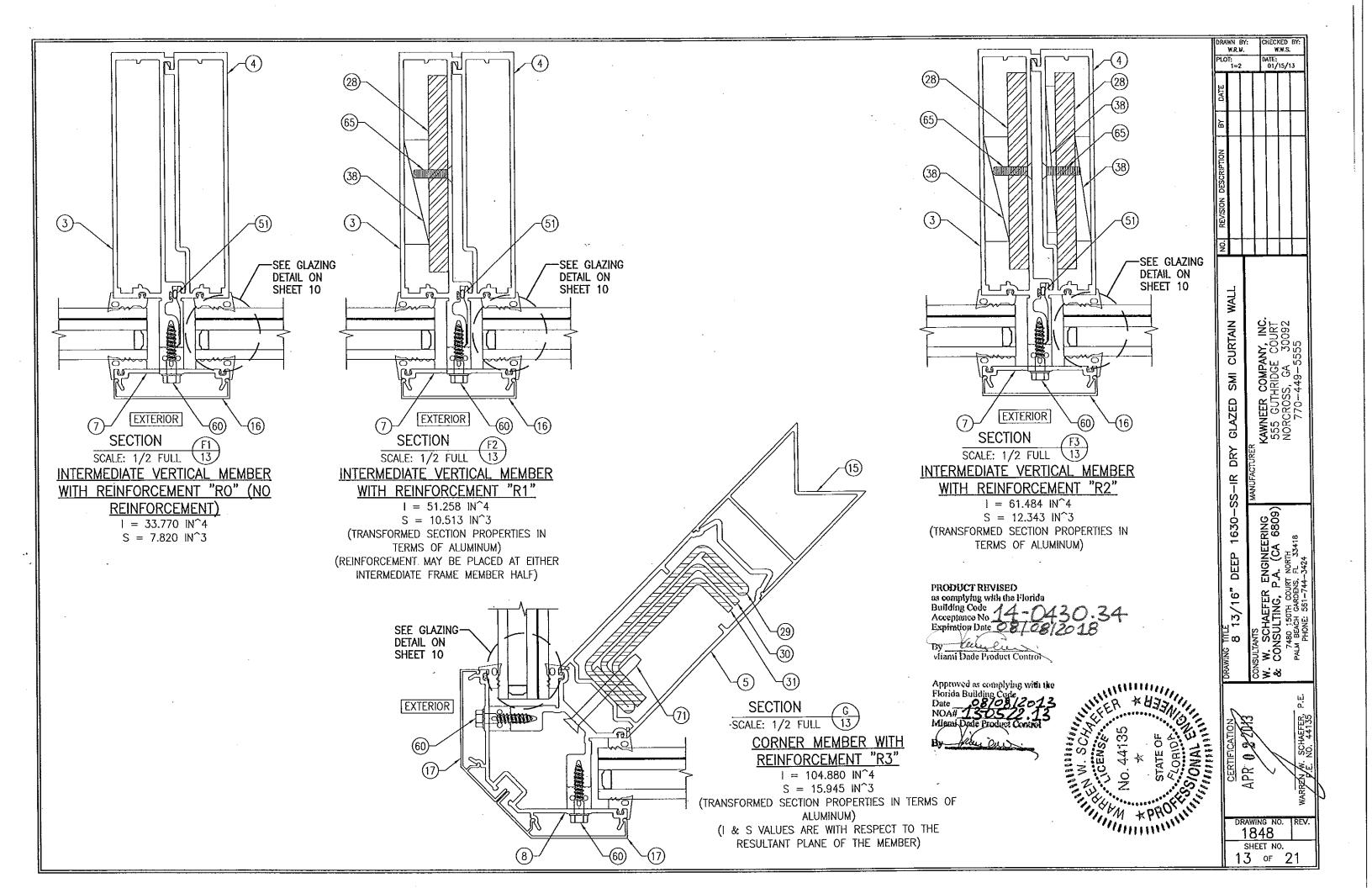
프

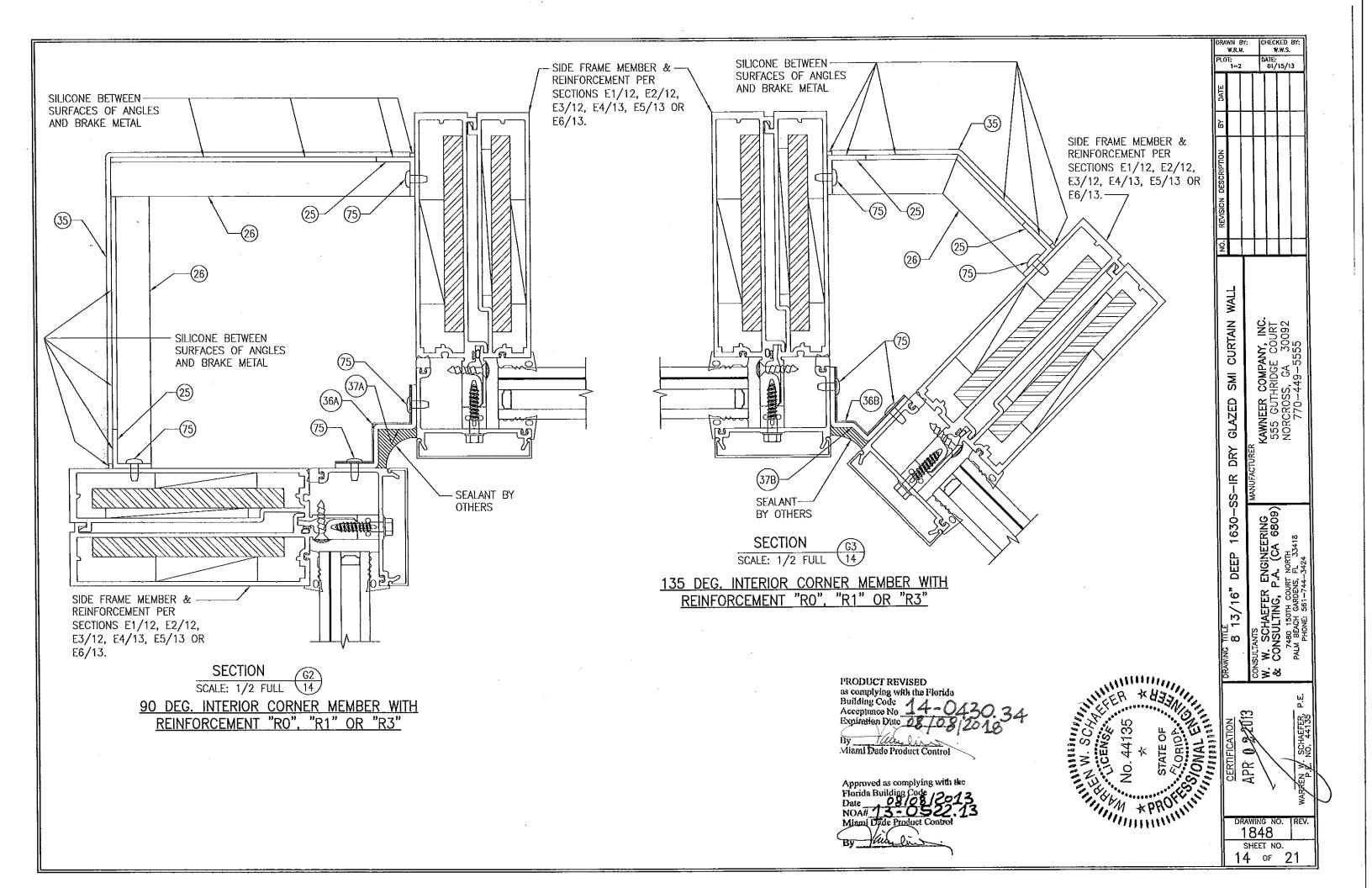
13/16"

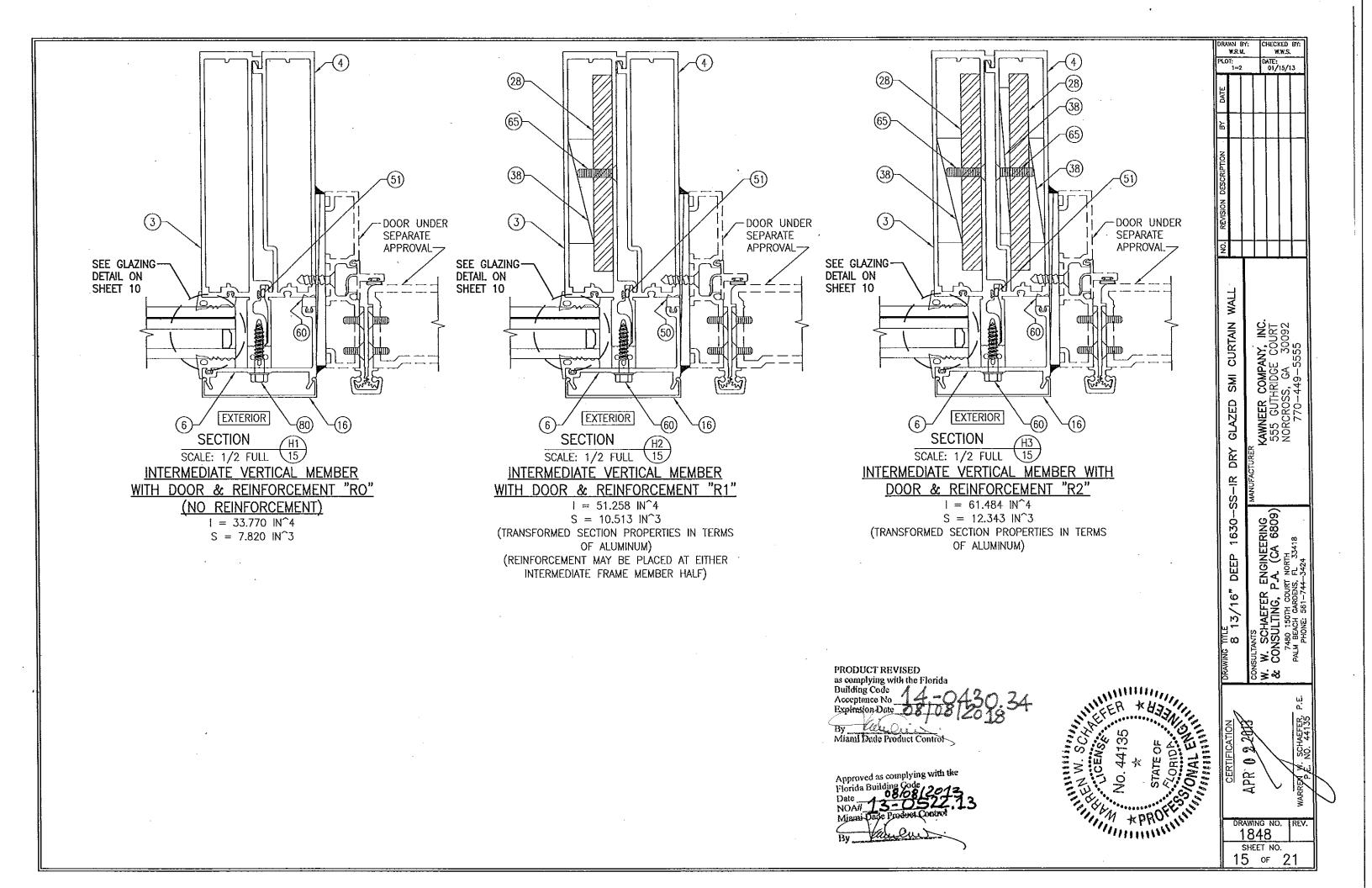
1848 SHEET NO. 12 of 21

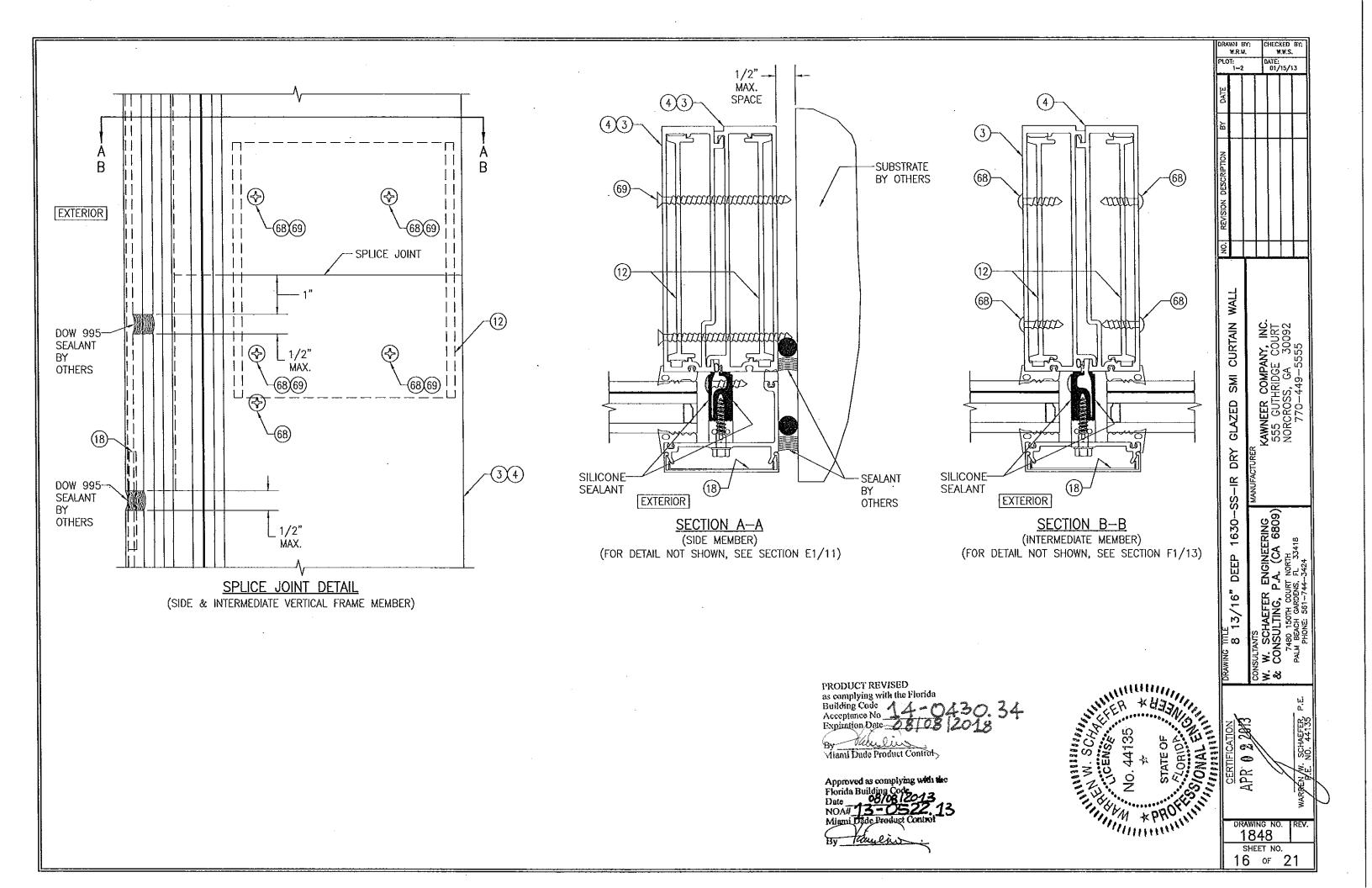
#### SIDE PERIMETER SEALANT NOTE:

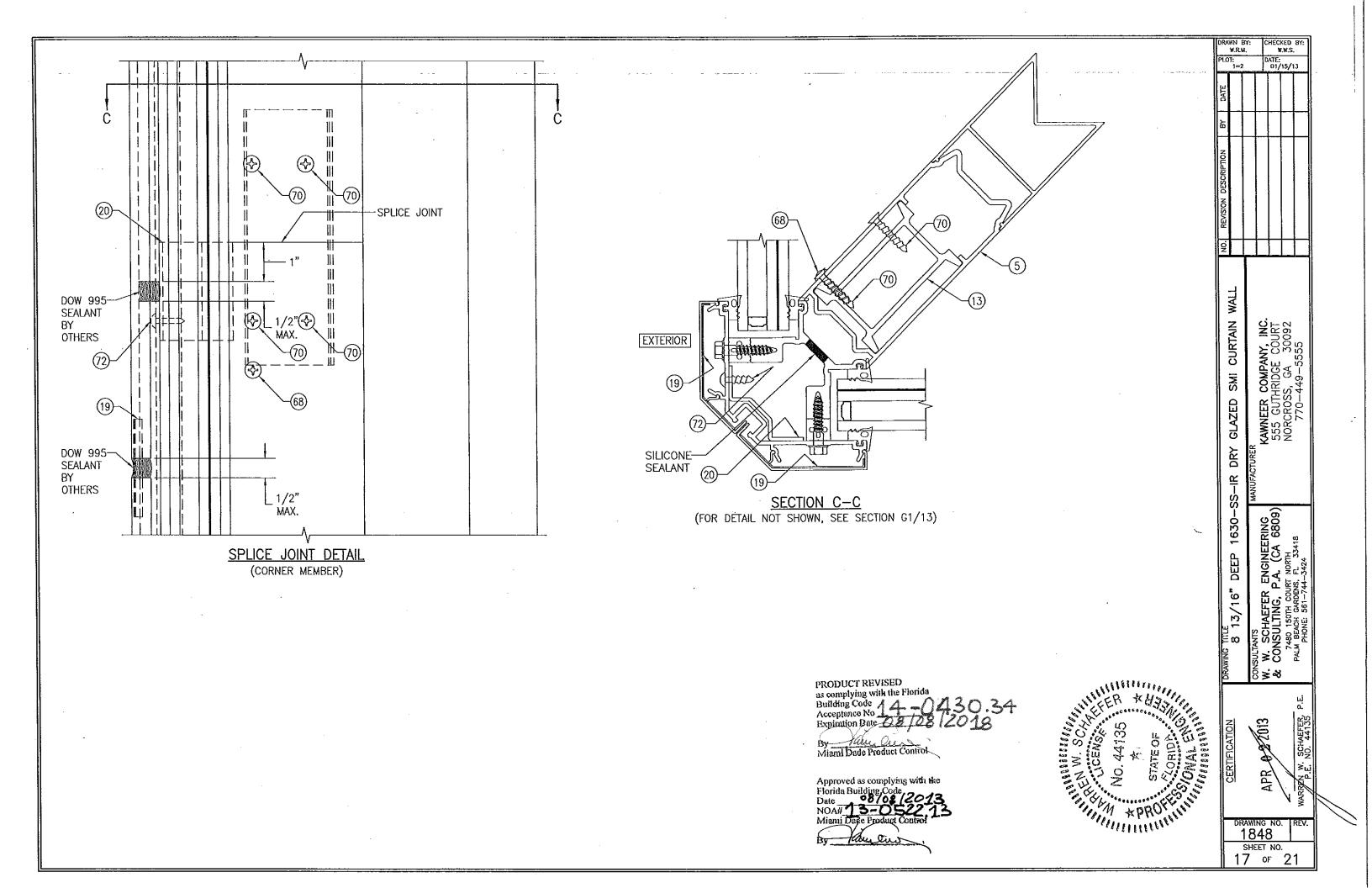
THE MINIMUM & MAXIMUM ALLOWABLE SPACE BETWEEN SIDE FRAME MEMBERS & THE OPENING SUBSTRATE OR FINISHES SHALL BE SPECIFIED BY THE ENGINEER OR ARCHITECT OF RECORD FOR EACH JOB BUT SHALL NOT BE LESS THAN 1/2" NOR GREATER THAN 1 3/8". WHEN CONSIDERING TYPE, DEPTH & JOINT SPAN OF SEALANT, THE ENGINEER/ARCHITECT SHALL TAKE INTO CONSIDERATION THE DEFLECTION OF THE JAMB MEMBER THAT WOULD OCCUR WHILE SUPPORTING THE JOB REQUIRED DESIGN WIND PRESSURE. ALSO TO BE CONSIDERED SHALL BE THE MATERIALS & SURFACES TO WHICH THE SEALANT WILL BE APPLIED.

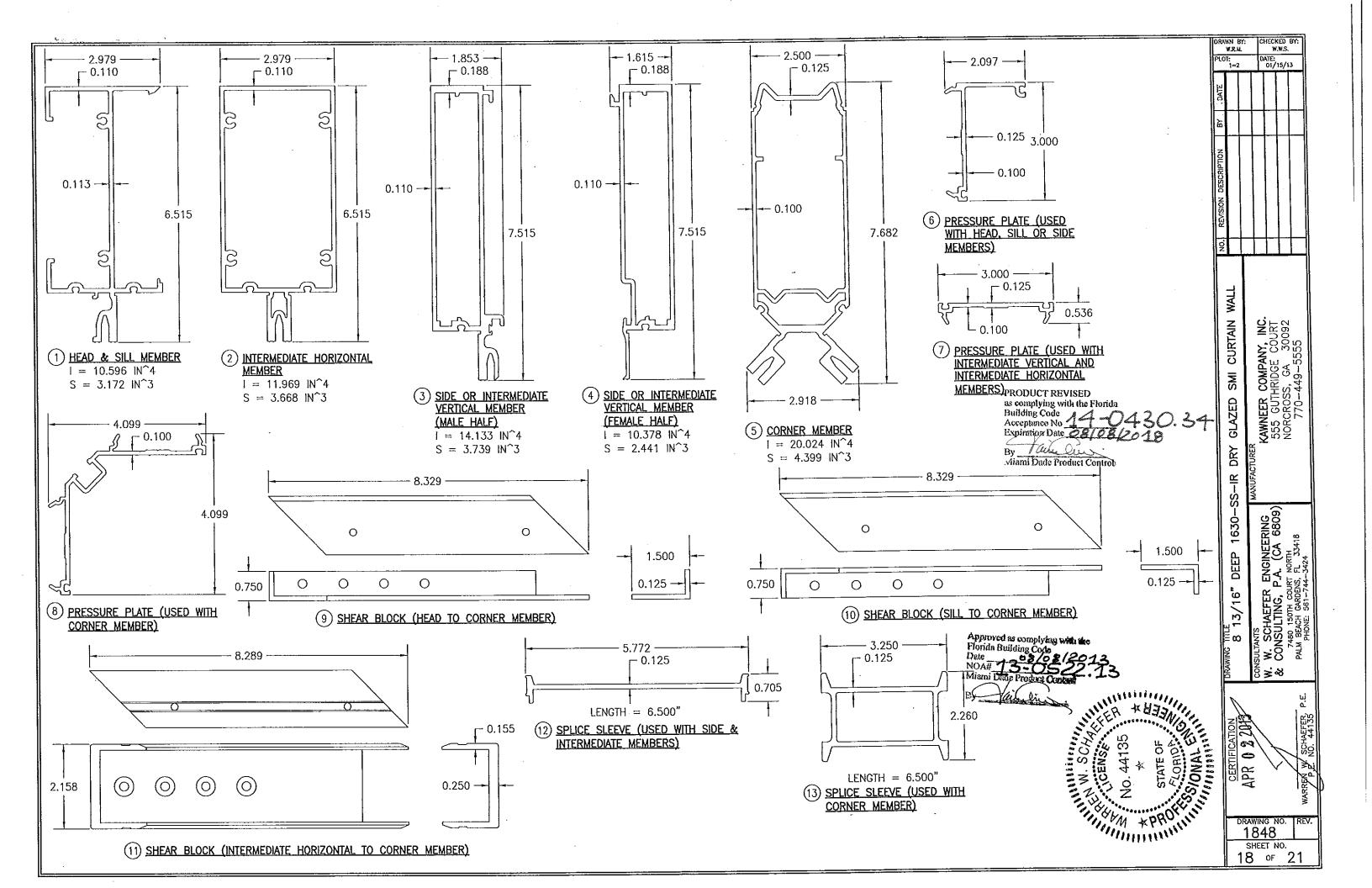


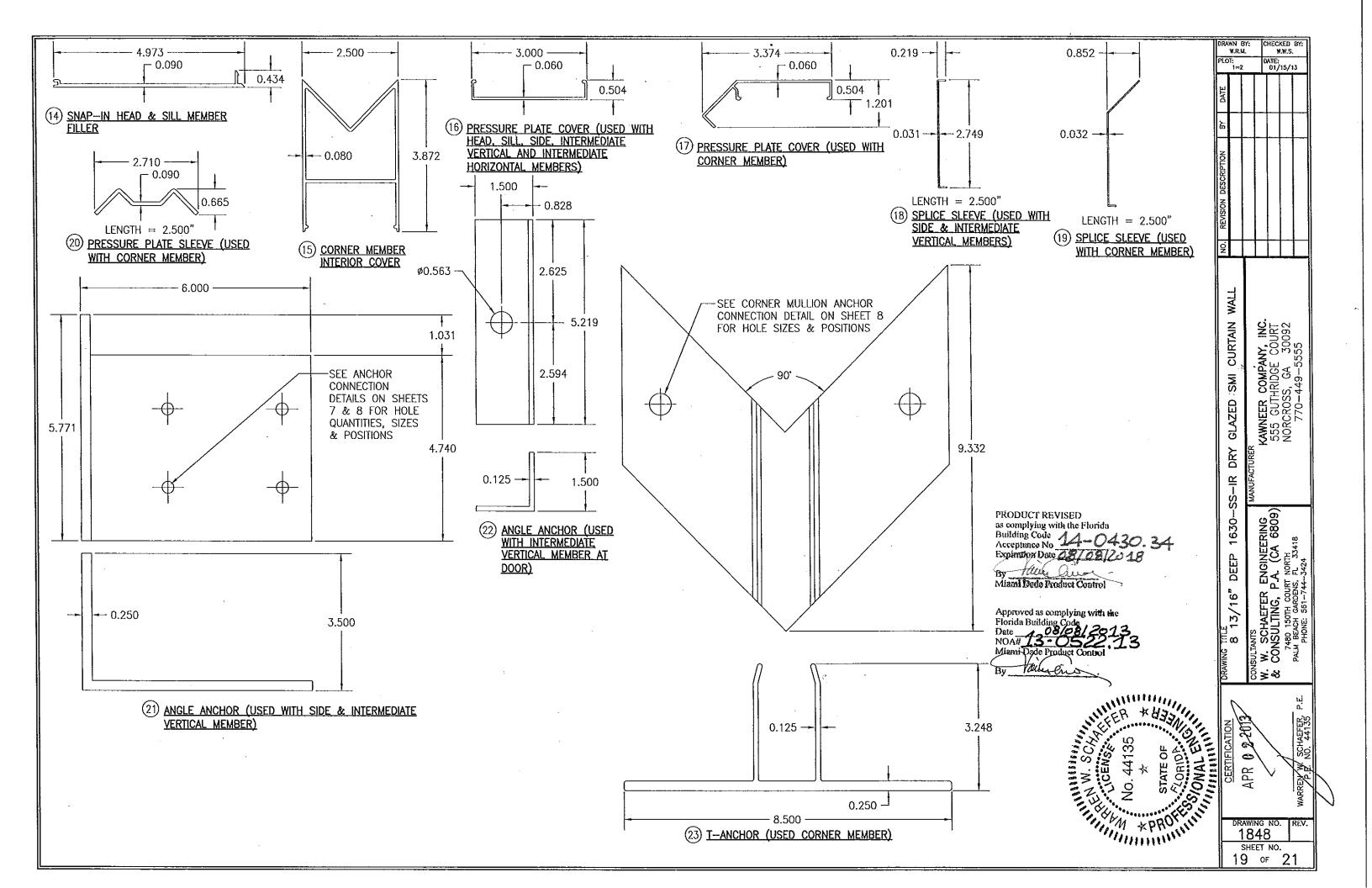


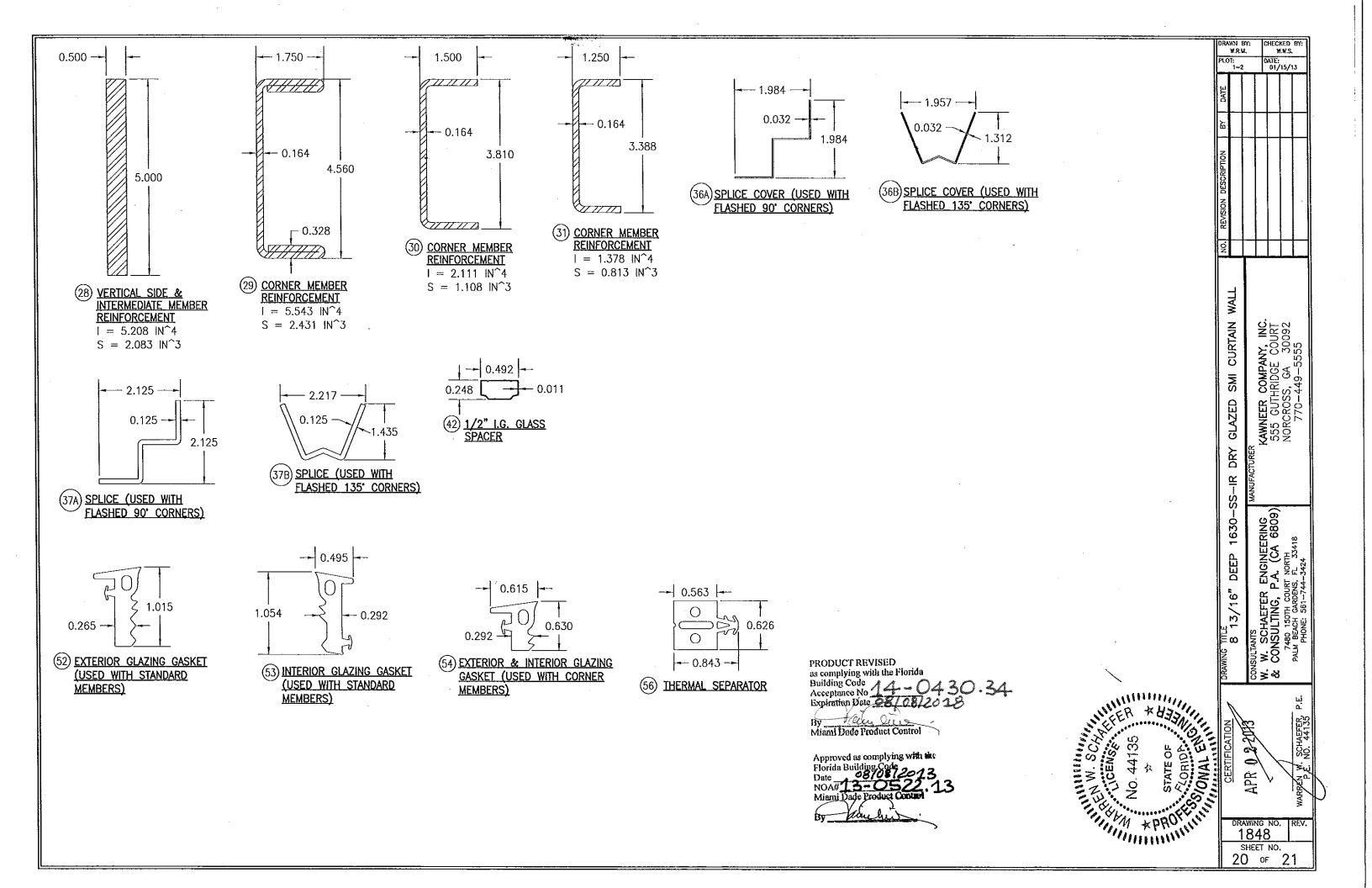












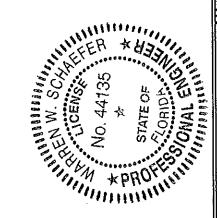
ITEM:#	ITEM DESCRIPTION	MANUFACTURER/NOTES
	PARTS	
1	HEAD & SILL MEMBER	6063-T6 ALUMINUM
2	INTERMEDIATE HORIZONTAL MEMBER	6063—T6 ALUMINUM
3	SIDE OR INTERMEDIATE	6063T6 ALUMINUM
•	VERTICAL MEMBER (MALE HALF)	
4	SIDE OR INTERMEDIATE	6063-T6 ALUMINUM
	VERTICAL MEMBER (FEMALE HALF)	
5	CORNER MEMBER	6063-T6 ALUMINUM
6	PRESSURE PLATE (USED WITH HEAD, SILL OR	6063-T6 ALUMINUM
	SIDE MEMBERS)	
, 7	PRESSURE PLATE (USED WITH INTERMEDIATE	6063—T6 ALUMINUM
	VERTICAL AND INTERMEDIATE HORIZONTAL MEMBERS)	·
8	PRESSURE PLATE (USED WITH CORNER MEMBER)	6063—T6 ALUMINUM
9	SHEAR BLOCK (HEAD TO CORNER MEMBER)	6063—T6 ALUMINUM
10	SHEAR BLOCK (SILL TO CORNER MEMBER)	6063—T6 ALUMINUM
11	SHEAR BLOCK (INTERMEDIATE HORIZONTAL	6063—T6 ALUMINUM
	TO CORNER MEMBER)	
12	SPLICE SLEEVE (USED WITH SIDE &	6063—T6 ALUMINUM
	INTERMEDIATE MEMBERS)	
13	SPLICE SLEEVE (USED WITH CORNER MEMBER)	6063—T6 ALUMINUM
14	SNAP-IN HEAD & SILL MEMBER FILLER	6063—T6 ALUMINUM
15	CORNER MULLION INTERIOR COVER	6063—T6 ALUMINUM
16	PRESSURE PLATE COVER (USED WITH HEAD, SILL,	6063—T6 ALUMINUM
	SIDE, INTERMEDIATE VERTICAL AND INTERMEDIATE	
	HORIZONTAL MEMBERS)	
17	PRESSURE PLATE COVER (USED WITH CORNER	6063—T6 ALUMINUM
	MAMBER)	
18	SPLICE SLEEVE (USED WITH SIDE &	6063—T6 ALUMINUM
10	INTERMEDIATE VERTICAL MEMBERS)	0007 TO ALLBANIN
19	SPLICE SLEEVE (USED WITH CORNER MEMBER)	6063-T6 ALUMINUM
20	PRESSURE PLATE SLEEVE (USED WITH	6063-T6 ALUMINUM
0.1	CORNER MEMBER)	COCZ TO ALLIMANIA
21	ANGLE, ANCHOR (USED WITH SIDE & INTERMEDIATE VERTICAL MEMBERS)	6063-T6 ALUMINUM
22	ANGLE ANCHOR (USED WITH	COCZ TC ALLWANDA
22	INTERMEDIATE VERTICAL MEMBER AT DOOR)	6063-T6 ALUMINUM
23	ANGLE ANCHOR (USED WITH CORNER MEMBER)	COCT TO ALLIMINING
23 24	3" X 5" X 3/16" FLAT BAR	6063—T6 ALIMINUM
25	1" X 1" X 1/8", ANGLE	6063—T6 ALUMINUM 6063—T6 ALUMINUM
25 26	1" X (1" X 1/8" ANGLE (LENGTH AS REQ'D)	6063—T6 ALUMINUM
28	VERTICAL SIDE & INTERMEDIATE MEMBER	ASTM A36 STEEL
20,	REINFORCEMENT	NOTINE ADD STEEL
29	CORNER MEMBER REINFORCEMENT	ASTM A1011 GRADE 50 STEEL
30	CORNER MEMBER REINFORCEMENT	ASTM A1011 GRADE 50 STEEL
31	CORNER MEMBER REINFORCEMENT	ASTM A1011 GRADE 50 STEEL
32	2" X 5 X 3/16" FLAT BAR	ASTM A1011 GRADE 50 STEEL
33	6" X 3" X 1/2" X 6" LONG ANGLE	50 KSI STEEL
34	9 1/2" X 4" X 5/8" X 6" LONG BENT PLATE	50 KSI STEEL
35	INTERIOR FLASHING (LENGTH & BEND AS REQ'D)	H5005-H34 BRAKE METAL
36A	SPLICE COVER (USED WITH FLASHED 90' CORN.)	H5005-H34 BRAKE METAL
36B	SPLICE COVER (USED WITH FLASHED 135' CORN.)	H5005-H34 BRAKE METAL
37A	SPLICE (USED WITH FLASHED 90' CORNERS)	H5005-H34 BRAKE METAL
37B	SPLICE (USED WITH FLASHED 135' CORNERS)	H5005-H34 BRAKE METAL.
38	COMMERCIAL GRADE HORESHOE SHIM	PLASTIC LOCATED AT EACH ITEM #65
42	1/2" I.G. GLASS SPACER	3005 OR 3105 ALUMINUM

T		SEALS & SEALANTS			
$\dashv$	50	FIXED GASKET	TREMCO TR4726P EPDM DUROMETER 65 +/-5	₩.R. PLOT:	-
1	51	FRAMING GASKET	INTEK 50172A		ĪΤ
┪			SANTOPRENE DUROMETER 65	DATE	
1			POLYPROPYLENE DUROMETER 80	۵	
	52	EXTERIOR GLAZING GASKET (USED WITH STANDARD	TREMCO TR-20494P EPDM	놂	
7	<u> </u>	MEMBERS)	DUROMETER 60 +/-5	╟╌╂╌	$\vdash$
ļ	53	INTERIOR GLAZING GASKET (USED WITH STANDARD	TREMCO TR-19828E EPDM	Ζ	
1	<u></u>	MEMBERS)	DUROMETER 60 +/-5	DESCRIPTION	.
1	54	EXTERIOR & INTERIOR GLAZING GASKET (USED	TREMCO TR-4014P EPDM DUROMETER 60 +/-5	SS	
1		WITH CORNER MEMBERS)			
7	56	THERMAL SEPARATOR	TREMCO TR-20087E EPDM DUROMETER 70 +/-5 THERMO-TOK TN-9004	13 10 13	
ł	57	STEEL TO ALUMINUM SEPERATOR	THERMO-TOK TN-9004	윤	
1		FASTENERS		ġ.	╫
1	60	1/4" X 1 1/4" HWHTFS 300 SERIES S.S.	WITHIN 3" FROM ENDS & 9" MAX. O.C.	Ž	
1	61	NO. 12 X 1" HWHTFS 300 SERIES S.S.	2 PER FRAME END	∄	
7	62	NO. 12 X 7/16" PHTF 430 SERIES S.S.	4 PER SHEAR BLOCK	∥	
1	63	NO. 12 X 1" PHTF 300 SERIES S.S.	2 PER SHEAR BLOCK	WALL	
	64	NO. 10 X 1" FHTFS 300 SERIES S.S.	WITHIN 4 FROM ENDS & 48" MAX. O.C.	≥	
	65	10-24 X 1" FHMS 300 SERIES S.S.	WITHIN 3" FROM ENDS & 48" MAX. O.C.	CURTAIN	
	66	NO. 12 X 1" HWHTFS 300 SERIES S.S.	4 PER FRAME END	11	,
7	67	NO. 12 X 7/8" FHTFS 300 SERIES S.S.	4 PER SHEAR BLOCK	∥ Յ	1 3
	68	NO. 12 X 1" PHTFS 300 SERIES S.S.	2 PER JAMB SPLICE JOINT 1 UNDER SLICE;	SMI	5
		· ·	4 PER INTERMEDIATE SPLICE JOINT 1 UNDER SLICE	र्क	{
l		110 40 V 7 4 (0) FUTTO 700 OFFIE	1 UNDER CORNER SLICE JOINT		1 8
1	69	NO. 12 X 3 1/2" FHTFS 300 SERIES S.S.	4 PER JAMB SPLICE JOINT	GLAZED	
	70	10-16 X 1 1/4" FHSDS 300 SERIES S.S.	4 PER CORNER SPLICE JOINT	┨╏	
	71	1/4-20 X 2 1/2" FHTCMS CARBON STEEL	WITHIN 4" FROM ENDS & 24" MAX. O.C.	<b>⊢</b> ≿	뗬 2
	72 73	10-16 X 3/4" PHSDS 400 SERIES S.S.	I PER PRESSURE PLATE SLEEVE	DRY	E.
	73	10 X 5/8" FHTFS 300 SERIES S.S.  NO. 10 X 1/2" FHTFS 300 SERIES S.S.	6 PER ITEM 24	₩ 🔀	UFA(
╛	/4	INU. 10 X 1/2 PHIFS 300 SERIES 5.5.	3 PER ITEM 22	- Մ	MANUFACTURER
		·		30-SS-IR	
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4				<b>Ε</b> ∞	TANTS

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 14-0430.34 Expiration Date 2810812018

By Mianti Bade Product Control

Approved as complying with the Florida Building Code 13
Date 13-0522.13
Miami Dade Product Control



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W. W. SCHAEFER ENGINEERING
& CONSULTING, P.A. (CA 6809)

7480 150TH COURT NORTH
PALM BEACH GARDENS, P. 33418
PHONE: 561-744-3424

CHECKED BY: W.W.S. DATE: 01/15/13

KAWNEER COMPANY, INC. 555 GUTHRIDGE COURT NORCROSS, GA 30092 770-449-5555

DRAWING NO. REV. 1848 SHEET NO. 21 OF 21